

THIS OPINION WAS NOT WRITTEN FOR PUBLICATION

The opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.

Paper No. 134

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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JEAN M. H. HEUSCHEN, JOHN B. LUCE and STEPHAN Z. TOMLINSON

Junior Party,<sup>1</sup>

v.

MASAYA OKAMOTO

Senior Party.<sup>2</sup>

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Patent Interference No. 103,272

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FINAL HEARING: January 29, 1998

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CALVERT, SOFOCLEOUS, and HANLON, Administrative Patent Judges.

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<sup>1</sup> Application No. 07/228,710, filed August 5, 1988. Assignors to General Electric Co., A Corp. of New York.

<sup>2</sup> Application No. 07/231,151, filed August 11, 1988, now U.S. Patent No. 4,997,903, issued March 5, 1991. Accorded Benefit of Japanese Priority Application No. 62-213252, filed August 27, 1987. Assignor to Idemitsu Petrochemical Co. Ltd., A Corp. of Japan.

SOFOCLEOUS, Administrative Patent Judge.

### FINAL DECISION

The subject matter of this interference relates to polycarbonate resins which are used in the manufacture of compact discs. The count of this interference is as follows:

#### Count 2

A para-cumylphenol endcapped polycarbonate resin (a) having a Kasha Index of from about 2800 to about 3400 centiseconds at 250EC., or (b) having a viscosity-average molecular weight in the range from 10,000 to 17,000.

The party Heuschen et al.'s (hereinafter "Heuschen") claims 1 to 5, 9 and 10 and the party Okamoto's claims 1 to 7 correspond to the count. No issue of interference-in-fact under 37 CFR § 1.633(b) or separate patentability of claims under 37 CFR § 1.633(c)(4) has been raised.

After rendering the Decision on Preliminary Motions, the Administrative Patent Judge (APJ) set times for both parties to present testimony. Both parties presented testimony, filed records<sup>3</sup> and appeared, through counsel, at final hearing. The senior party Okamoto did not present priority testimony but relies upon the benefit under 35 U.S.C. § 119 of its Japanese application, 62-213252, filed August 27, 1987.

### ISSUES

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<sup>3</sup> The Heuschen record will be referred to as HR followed by its page number; each Heuschen exhibit, as HX followed by its number. Similarly, the Okamoto record will be referred to as OR followed by its page number; each Okamoto exhibit, as OX followed by its number.

The briefs raise the following issues:

1. Whether the subject matter of count 2 is unpatentable to either party over prior art, as urged by the party Okamoto.
2. Whether count 1 should be reinstated, as urged by the party Okamoto.
3. Whether the party Heuschen has established priority of invention.
4. Whether the party Heuschen's belated preliminary motion (Paper No. 60) for judgment under 37 CFR § 1.633(a) based on lack of candor on the part of the party Okamoto should be considered. If the motion is considered, whether the motion should be granted.
5. Whether the party Okamoto's belated preliminary motion (Paper Nos. 44 and 48) for judgment under 37 CFR § 1.633(a) based on the failure of the Heuschen application to disclose its best mode should be considered. If the motion is considered, whether the motion should be granted.
6. Whether the Heuschen application lacks an enabling disclosure, as urged by the party Okamoto.

In addition, the following opposed motions to suppress were filed:

7. Motion to suppress certain evidence, filed by the party Heuschen (Paper No. 118).
8. Motion to suppress certain evidence, filed by the party Okamoto (Paper No. 120).

Issue (5) concerns whether the party Heuschen's application fails to disclose its best mode with respect to (i) the specific process of pH equilibration used in making the para-cumyl phenol endcapped polycarbonate resin of the count and (ii) certain aspects

of the Kasha Index measurement procedure and apparatus. We decline to consider the issue insofar as it raises matter (ii).

Matter (ii) concerns the party Okamoto's actions during ex parte prosecution and in this interference. During ex parte prosecution, the examiner suspended further prosecution of the Okamoto application due to a potential interference. When counsel for the party Okamoto received notice of the suspension, he telephoned the examiner who then told counsel that the claims of the Okamoto application defined its polymers in terms of viscosity-average molecular weight whereas the other interfering application (the involved Heuschen application) defined the polymers in terms of Kasha Index in centiseconds at 250EC. See HX 14. In response to the examiner's telephone interview, counsel requested from his client Okamoto information correlating the Kasha Index measurements with molecular weight. The client supplied that information to counsel, who in turn forwarded that information to the PTO in the correspondence (HX 14). The primary examiner relied upon the information and permitted the Okamoto application to issue as the involved patent.

The foregoing facts make clear to us that during ex parte prosecution the party Okamoto represented to the examiner that it was able to, and did, correlate the Kasha Index measurements with molecular weight. In this interference, the party Okamoto is taking the position, contrary to that taken during ex parte prosecution, that it cannot determine the Kasha Index measurements. We deem it improper for a party to take a

position which is inconsistent with a position previously taken by the party, especially where the party had obtained a judicial benefit on its previous position. Cf. Bosies v. Benedict, 27 F.3d 539, 542, 30 USPQ2d 1863, 1866 (Fed. Cir. 1994) and Wang Lab. Inc. v. Applied Computer Sciences Inc., 958 F.2d 355, 358, 22 USPQ2d 1055, 1058 (Fed. Cir. 1992). The benefit obtained by the party Okamoto, as we noted above, was to obtain the issuance of its claims designated as corresponding to the count.

For the foregoing reasons, we decline to consider issue (5) insofar as it raises matter (ii), the failure to disclose the best mode with respect to certain aspects of the Kasha Index measurement procedure and apparatus, but we will consider issue (5) insofar as it raises matter (i), the failure to disclose the best mode with respect to the specific process of pH equilibration used in making the party Heuschen's para-cumyl phenol endcapped polycarbonate resin. Since the motion papers show that the facts underlying matter (i) came to the party Okamoto's attention after the expiration of the time for filing preliminary motions, i.e., during the testimony of the party Heuschen's witnesses, we agree with the party Okamoto that it could not have filed the motion during the motion period. Consequently, the party Okamoto has shown good cause within the meaning of 37 CFR § 1.655(b) as to why matter (i) was not properly raised by a timely filed motion.

In view of our disposition with respect to issue (5), we need not consider issue (4). The question of lack of candor raised here is based upon the change of position taken by the party Okamoto in this interference with respect to its position taken during ex

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parte prosecution concerning the correlation of Kasha Index measurements with molecular weight. Since the party Okamoto is estopped from arguing a best mode failure due to the Kasha Index measurements, we need not consider issue (4).

Issue (6) is not entitled to any consideration. The party Okamoto did not file a preliminary motion for judgment on the ground that the party Heuschen's involved application lacks an enabling disclosure for its involved claims corresponding to the count.

See 37 CFR § 1.655(b) which states:

A party shall not be entitled to raise for consideration at final hearing any matter which properly could have been raised by a motion under § 1.633 or 1.634 unless the matter was properly raised in a motion that was timely filed by the party under § 1.633 or § 1.634 and the motion was denied or deferred to final hearing. . . .

Nor has the party Okamoto shown good cause why the issue was not properly raised by a timely filed motion. Accordingly, we will not consider this issue.

Each party's motion to suppress concerns whether certain evidence relied upon by its opponent should not be given consideration. To the extent that we rely upon the evidence complained of, we will address the objection presented in the party's motion.

Thus, the only issues entitled to consideration are issues (1) and (2) concerning the count, issue (3) concerning the party Heuschen's priority case, issue (5) with respect to best mode concerning pH equilibration, and issues (7) and (8) to the extent that we rely upon any complained of evidence.

ISSUES (1) AND (2) - THE COUNT

Issue (1)

Issue (1) concerns the party Heuschen's preliminary motion to substitute count 2 for count 1, which motion was granted over the party Okamoto's opposition.

In accordance with 37 CFR § 1.601(q), an APJ's decision on a preliminary motion constitutes an interlocutory order, which, pursuant to 37 CFR § 1.655(a), is presumed to have been correct with the burden of showing error or abuse of discretion upon the party attacking the order. Gustavsson v. Valenti, 25 USPQ2d 1401, 1405-06 (Bd. Pat. App. & Int. 1991) and Suh v. Hoefle, 23 USPQ2d 1321, 1326 (Bd. Pat. App. & Int. 1991). An abuse of discretion occurs if the decision (i) is clearly unreasonable, arbitrary, or fanciful; (ii) is based on an erroneous conclusion of law; (iii) rests on clearly erroneous fact findings; or (iv) involves a record that contains no evidence on which the APJ could rationally base his or her decision. Abrutyn v. Giovanniello, 15 F.3d 1048, 1050-51, 29 USPQ2d 1615, 1617 (Fed.Cir. 1994).

The party Okamoto has not sustained its burden in accordance with 37 CFR § 1.655(a) to show that the APJ's decision constitutes an abuse of discretion.

The party Okamoto urges that count 2<sup>4</sup> is unpatentable over prior art, namely, Japanese Patent 62-10541 (OX 14)<sup>5</sup>. The Japanese patent corresponds to Japan Kokai

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<sup>4</sup> Count 2 is identical to Heuschen claim 1, except for the addition of the alternative Okamoto expression, "or (b) having a viscosity-average molecular weight in the range from 10,000 to 17,000."

<sup>5</sup> In view of our disposition of this issue, the party Heuschen's motion to suppress with respect to the Japanese references (OX 13 and 14) is dismissed as moot.

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57-133149 (OX 13), which is cited in the involved Heuschen application at page 5, line 23, and in the involved Okamoto patent, at column 2, lines 25 to 33. Thus, OX 13 and 14 will be referred to collectively as the Japanese reference. The Japanese reference discloses similar polymers to those claimed by the parties, but does not disclose the particular Kasha Index values recited in the Heuschen claims or the particular molecular weight ranges recited in the Okamoto claims. Thus, the Japanese reference would not have anticipated any of the parties' claims.

Nor, in our view, would the Japanese reference have rendered prima facie obvious any of the involved Heuschen or Okamoto claims, since the Japanese



reference contains no disclosure of any Kasha Index values or any molecular weight ranges. Moreover, during ex parte prosecution, in the Office Action dated June 21, 1989 (Paper No. 7 of the involved Heuschen application), the examiner rejected the Heuschen claims as being obvious over the Japanese reference and after considering Heuschen's response (Paper No. 14, filed December 26, 1989) thereto, the examiner withdrew the rejection<sup>6</sup>. Nowhere has the party Okamoto shown where the examiner's action is erroneous. Cf. Brown v. Bravet, 25 USPQ2d 1147, 1150 (Bd. Pat. App. & Int. 1992). Nor would the party Okamoto have been able to do so. In its involved patent specification, the party Okamoto made a showing of unexpected results with respect to its particular polycarbonate molecular weight ranges. In our view, this showing would also inure to the benefit of the party Heuschen, especially since both parties are claiming the same invention, albeit in different terms. The party Okamoto does not urge that an interference-in-fact does not exist, i.e., that the Okamoto claims are patentably distinct from the Heuschen claims.

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<sup>6</sup> In this regard, we note that the Heuschen application claims were finally rejected on the grounds of indefiniteness, that Heuschen filed an appeal to the Board of Patent Appeals and Interferences, that a panel of the Board reversed the examiner's rejection and did not enter any new ground of rejection over the Japanese reference under 37 CFR § 1.692, as it could have, and should have, done if the panel deemed that the claims were unpatentable over that reference.

For the foregoing reasons, we hold that the party Okamoto has failed to demonstrate an abuse of discretion in the granting of the party Heuschen's motion<sup>7</sup> to redefine by substituting count 2 for count 1.

Issue (2)

Since we consider that count 2 is patentable over the prior art, we need not consider whether count 1 should be reinstated. Accordingly, this issue is dismissed as moot.

ISSUE (3) - THE PARTY HEUSCHEN'S CASE FOR PRIORITY

The junior party Heuschen, whose application was copending with the party Okamoto's application that issued as a patent, has the burden of proving priority of invention by a preponderance of the evidence. Bosies v. Benedict, 27 F.3d at 541-42, 30 USPQ2d at 1864, and Peeler v. Miller, 535 F.2d 647, 651, 190 USPQ 117, 120 (CCPA 1976). For its case on priority, the party Heuschen relies upon actual reduction to practice prior to the August 27, 1987 effective filing date of the senior party Okamoto.

Witnesses testifying on behalf of the party Heuschen are Dr. Jean M. Heuschen, one of the named co-inventors; and Messrs. Stephen M. Cooper, Robert J. Ungetheim, Paul I. Hinderliter and H. Lowell Hess, corroborators, all of whom during the

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<sup>7</sup> If we held count 2 to be unpatentable, which we do not, then we would necessarily agree with the party Heuschen that we would have to reopen this interference to give the party Heuschen an opportunity to present further proofs.

relevant time period were employees of General Electric Company. The Heuschen record relies upon the following activities for actual reduction to practice.

Dr. Heuschen, a Ph.D. polymer scientist, testified that on June 5, 1987, he issued a memorandum, HX 1, directing that a "campaign" be undertaken "fully identical" to ML 5468, except for using "p-cumyl phenol" endcap in place of "pt [paratertiary] butyl phenol" "to address the ductility issue of ML 5468." ML 5468 is para-tertiary butyl phenol endcapped polycarbonate, having a low viscosity defined by Kasha Index as between 2800 and 3400 centiseconds, measured at 250EC. At that time, ML 5468 was being manufactured and marketed by General Electric for making compact (or audio) discs. HR 402 and 404 to 411.

Dr. Cooper, a Ph.D. organic chemist, testified that on July 10, 1987, pursuant to the memorandum (HX 1) he issued an order, HX 2, for the Lexan Resin Plant to produce and bag 5,280 pounds of polycarbonate resin powder endcapped with para-cumyl phenol and having a Kasha Index of 2800-3200 centiseconds at 250EC. This production was identified as RL 5568 and Lot No. LN 7607; the run was done on July 10, 1987. HR 15 to 22.

Mr. Ungetheim testified that in July of 1987, he was the operations supervisor in the Lexan Resin Plant and that he was responsible for the supervision of the people who worked there and for the coordination and scheduling of the production of polycarbonate resins. HR169 and 170. Mr. Ungetheim testified that HX 8 consists of two

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pages of the 1987 log for the Lexan resin plant, and that the notes in the log were made by an operator or shift leader, himself or the unit manager. HR 172 and 174. He testified that the two pages recount the significant events throughout the day, that he supervised the activities on July 10, 1987 that are recorded on the pages, that the log book entries are regularly and routinely kept by the operators, and that he is the custodian of the log book. HR 177 to 179. Mr. Ungetheim testified that the runs recorded in HX 8 were done in response to the order (HX 2), given by Dr. Cooper, and that he (Mr. Ungetheim) was in daily communication and planning with Dr. Cooper. HR 187, 188, 196 and 197. Mr. Ungetheim further testified that the Kasha Index measurements of the resins produced were determined during the manufacturing as a regular and routine control procedure and for record purposes, and that the Kasha Indexes for the two polycarbonate resins produced on July 10, 1987, were, respectively, 2970 and 2960, both of which fell within the range of 2800 to 3400. HR 190, 191, 197 to 199; HX 9.

Mr. Hinderliter testified that he is the quality specialist in the Lexan Resin Lab and his responsibilities include maintaining data records. HR 237 and 238. He testified that he is the custodian of the test records which are routinely stored on computer discs, and that he retrieved the test results for the period from July 1 to 24, 1987, and printed those results on the computer print out, HX 9, and that the results were for the resins made on July 10, 1987. HR 240 to 244 and 248 to 250.

Mr. Hess testified that in 1987 he was the operation lead of the product development lab and oversaw the testing (molding test samples, Izod Impact testing, making test chips, and conducting Kasha Index measurements), and that he wrote weekly reports on the amount of work that went through the lab. HR 287 and 288. He testified that he supervised the compounding of resin powders into pellets. HR 290. He testified that HX 3 is a request, dated July 13, 1987, from Dr. Cooper to extrude a sample of the para-cumyl phenol endcapped polycarbonate resin powder (RL 5568) into pellets, some being compounded with a stabilizer R 542 and some compounded with a mold release agent R 538 and to extrude a parallel sample of RL 5404 (a similar grade of polycarbonate resin endcapped with para-tertiary butyl phenol). Mr. Hess testified that in accordance with the request, Mr. Butler, a technician, now deceased, working under Mr. Hess' direction and supervision, extruded six batches, three for each resin. HR 291 to 303; HX 3 and 10. Mr. Hess testified that each of the six batches was tested on July 23 and 24, 1987, for its Kasha Index measurement; that the Kasha Index test is a simple, routine and regularly conducted test; that the results show that each batch had a Kasha Index value falling in the range between 2800 and 3400 at 250EC; that the results were recorded in log book (HX 11); and that he is the custodian of the record. HR 303 to 308. He also testified that the six extrusion batches (para-cumyl phenol versus para-tertiary butyl phenol endcapped disc resins) identified in HX 3 were prepared for ductile/brittle transition testing (notched Izod

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testing) under his direction and supervision and that the results are tabulated in HX 5. HR 309 to 315.

Dr. Cooper testified that on July 14, 1987, he prepared the exhibit (HX 4), titled "DUCTILE/BRITTLE TRANSITION COMPARISON," from the results set forth in HX 5. HR 30 and 31. He testified that HX 4 is a summary of the ductile tests on the batches identified in HX 3. He testified that the tests were done at his direction, and that it was his custom and that of other scientists to rely upon test results as exhibited in a report such as HX 5. HR 35 to 37. He further testified that the test results show that the para-cumyl phenol endcapped polycarbonate resin would be an excellent material for molding compact discs, because the data shows that the resin was at least equivalent and in some cases better than the para-tertiary butyl phenol endcapped polycarbonate CD grade material used in compact discs. HR 38 to 41. Dr. Cooper testified that the results were disseminated to others at General Electric, that their reaction was similar to his, i.e., the para-cumyl phenol endcapped polycarbonate resin would be an excellent CD grade resin, and that shortly thereafter the resin was used to mold compact discs. HR 38 to 41.

Opinion re: the Party Heuschen's Case for Priority

We hold that the party Heuschen's record establishes actual reduction to practice at least as of July 14, 1987.

On pages 5 to 11, and 39 to 43, the party Okamoto argues that the Heuschen record fails to produce or corroborate evidence of priority as to an article of

manufacture, and that the priority date as to the resin is based on inadmissible hearsay. These arguments concern whether there is sufficient evidence to corroborate the inventor's testimony and whether actual testing of the para-cumyl phenol endcapped polycarbonate resin is necessary. For the reasons stated below, these arguments are not considered well taken.

I

With respect to the corroboration of the inventor's testimony, the purpose of the rule of corroboration is to prevent fraud and to establish that the inventor actually produced and knew the invention would work by proof that could not have been fabricated or falsified. Berry v. Webb, 412 F.2d 261, 266-67, 162 USPQ 170, 174 (CCPA 1969) and Gianladis v. Kass, 324 F.2d 322, 325, 139 USPQ 300, 303 (CCPA 1963). The notion that each individual act in an actual reduction to practice must be proved in detail by an unbroken chain of corroboration has been rejected. Mann v. Werner, 347 F.2d 636, 640, 146 USPQ 199, 202 (CCPA 1965). Consequently, the proper approach, i.e., the rule of reason, involves a reasoned examination, analysis and evaluation of all the pertinent evidence bearing on the question to the end that a reasoned determination as to the credibility of the inventor's story may be reached. Mann v. Werner, Id.; Berges v. Gottstein, 618 F.2d 771, 774, 205 USPQ 691, 695 (CCPA 1980).

Dr. Heuschen, one of the inventors, testified that he requested that a para-cumyl phenol endcapped polycarbonate resin within the scope of the count be made. The

non-inventor witnesses testified that such a resin was made, that its properties were determined, and that based on the properties, the resin would be useful as a compact disc. The exhibits and the testimony of the corroborating witnesses are consistent with Dr. Heuschen's testimony and demonstrate that the witnesses and the personnel reporting to them and under their supervision were involved in an organized program of research. Consequently, we are persuaded that the testimony of the Heuschen witnesses, Messrs. Cooper, Ungetheim, Hinderliter and Hess, together with the exhibits, HX 1 to 5 and 8 to 13, provide sufficient corroboration of a reduction to practice on behalf of the party Heuschen.

## II

In rendering our opinion on the party Heuschen's priority case, we have relied upon certain exhibits, HX 1 to 5, and 8 to 11, of which HX 3 to 5 and 8 to 11 are the subject of the party Okamoto's motion to suppress. The motion urges that these exhibits should be stricken because they are hearsay. The grounds for suppression are also reiterated in the party Okamoto's brief. The motion is denied insofar as it seeks to suppress HX 3 to 5 and 8 to 11.

In evaluating the evidence, we cannot ignore the realities of the technical operations in modern day research laboratories. Breuer v. DeMarinis, 558 F.2d 22, 29, 194 USPQ 308, 314 (CCPA 1977). In such a setting, the technician performing the perfunctory aspects of the testing is not necessarily the most satisfactory witness. Rather, the trained supervisor who is intimately aware of the everyday operation of the testing



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laboratory, who is responsible for the results and who works closely with his subordinates, is the one who can be relied upon for the most persuasive evidence. Holmwood v. Sugavanam, 948 F.2d 1236, 1239, 20 USPQ2d 1712, 1714-15 (Fed. Cir. 1991); Mann v. Werner, 347 F.2d at 640, 146 USPQ at 202.

Bearing in mind the foregoing principle, we agree with the party Heuschen that a supervisor to whom a laboratory assistant reports and for whom the assistant runs pertinent tests is the best witness to testify concerning an exhibit, especially where that supervisor is also the custodian of the record. The exhibits, HX 3 and 8 to 11, are such records. The supervisor responsible for each exhibit testified that the work reported on each exhibit was performed at his direction by his subordinate and that the supervisor is the custodian of the pertinent record. Under these circumstances, we perceive of no reason why we cannot consider these exhibits and accord them weight, especially where the testimony surrounding each exhibit is credible and consistent with the inventor's story. The party Okamoto has not shown otherwise.

HX 5 concerns a tabulation of results of the testing, as evidenced by HX 3 and 8 to 13; HX 4 is an exhibit prepared by Dr. Cooper using the data of HX 5. Dr. Cooper relied upon HX 4 to conclude that para-cumyl phenol endcapped polycarbonate would be as good as, or better than, the para-tertiary butyl phenol endcapped polycarbonate as a compact disc. Under the rule of reason, a senior researcher may rely upon and use internal company test records, which resulted from tests

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performed during the ordinary course of an organized research program. Cf. Lacotte v. Thomas, 758 F.2d 611, 612-13, 225 USPQ 633, 634 (Fed.Cir. 1985). We perceive of no reason why such internal test records cannot be used. Nor has the party Okamoto shown any.

### III

With respect to reduction to practice, it is well settled that an actual reduction to practice must meet each limitation of the count. See, in general, Newkirk v. Lulejian, 825 F.2d 1581, 1582-83, 3 USPQ2d 1793, 1794-95 (Fed.Cir. 1987) and Land v. Regan, 342 F.2d 92, 101, 144 USPQ 661, 669 (CCPA 1965). Proof of an actual reduction to practice requires a showing that the embodiment relied upon actually worked for its intended use. DSL Dynamic Sciences, Ltd. v. Union Switch & Signal, Inc., 928 F.2d 1122, 1125, 18 USPQ2d 1152, 1154 (Fed.Cir. 1991) and Newkirk v. Lulejian, 825 F.2d at 1582, 3 USPQ2d at 1794. The testing must demonstrate a practical utility for the invention and the testing requirement depends on the particular facts of each case, with the fact finder guided by a common sense approach in weighing the sufficiency of the testing. Scott v. Finney, 34 F.3d 1058, 1062, 32 USPQ2d 1115, 1118 (Fed.Cir. 1994). When the count does not specify any particular use, a showing of substantial utility for any purpose is sufficient to establish actual reduction to practice. Shurie v. Richmond, 699 F.2d 1156, 1159, 216 USPQ 1042, 1045 (Fed.Cir. 1983).

Here, since the count does not specify any particular utility, any showing of utility is sufficient to establish actual reduction to practice. The party Okamoto does not dispute that the witnesses testified that a para-cumyl phenol endcapped polycarbonate resin meeting the limitations of the count was produced. Rather, the party Okamoto urges that the para-cumyl phenol endcapped polycarbonate resin has not been shown to be useful, since no compact disc was made. While Dr. Cooper testified that the resin was made into a compact disc shortly after the resin was produced on July 14, 1987, he did not testify as to the exact date the disc was made. Nor does the Heuschen record indicate any such date. Nonetheless, the witnesses (Dr. Cooper and Dr. Heuschen) testified that sufficient properties of the para-cumyl phenol endcapped polycarbonate resin were determined from the ductile testing to show that the resin was equivalent and in some cases better than the para-tertiary butyl phenol endcapped polycarbonate that was being used for compact discs. Based on this data, the witnesses concluded that the para-cumyl phenol endcapped polycarbonate resin would be useful for making a compact disc. We find this testimony persuasive to establish reduction to practice. Utility can be established by determining sufficient properties of a resin such as here to show that the sought for utility is readily apparent. Bindra v. Kelly, 206 USPQ 570, 575 (Bd. Pat. Int. 1979). Here, the tests demonstrate a similarity of properties of the new resin (para-cumyl phenol endcapped polycarbonate resin) to the established properties of the known para-tertiary butyl phenol endcapped polycarbonate resin.

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For the foregoing reasons, we hold that the party Heuschen has sustained its burden to establish an actual reduction to practice prior to the effective filing date of the party Okamoto.

#### ISSUE (5) - BEST MODE

We hold that the party Okamoto has not sustained its burden to show that the involved Heuschen application fails to set forth the best mode contemplated by the inventors for carrying out their invention.

The party filing the motion, here the party Okamoto, has the burden of proof by a preponderance of the evidence. Kubota v. Shiyuba, 999 F.2d 517, 519 n.2, 27 USPQ2d 1418, 1420 n.2 (Fed. Cir. 1993). To meet its burden, the party Okamoto must present evidence which prima facie demonstrates that the Heuschen inventors knew of and concealed a better mode for carrying out the claimed invention than they disclosed in their involved application. Engel Industries Inc. v. The Lockformer Co., 946 F.2d 1528, 1531, 20 USPQ2d 1300, 1302 (Fed. Cir.1991); Chemcast Corp. v. Arco Indus. Corp., 913 F.2d 923, 927-28, 16 USPQ2d 1033, 1036-37 (Fed. Cir. 1990); Randomex, Inc. v. Scopus Corp., 849 F.2d 585, 588, 7 USPQ2d 1050, 1053 (Fed. Cir. 1988).

The best mode issue, raised by the party Okamoto, concerns the failure of the party Heuschen to disclose in its involved application the particular method for manufacturing para-cumyl phenol endcapped polycarbonate resin, i.e., the use of General

Electric's pH equilibration technology. However, the method of manufacturing the resin is not the Heuschen claimed invention. Rather, the Heuschen claimed invention is a para-cumyl phenol endcapped polycarbonate resin having a Kasha Index of from about 2800 to 3400 centiseconds at 250EC. Consequently, we agree with the party Heuschen's argument on page 28 of its Reply Brief that there is no failure to disclose the best mode, because the Heuschen claimed invention is the para-cumyl phenol endcapped polycarbonate resin and not the procedure for preparing the polycarbonate.

If we were to assume for the sake of argument that the particular procedure of manufacture is a part of the Heuschen invention, which it is not, we still are of the view that there is no failure to disclose the best mode.

Dr. Heuschen testified that the term, "pH equilibration" is used by General Electric to mean simply the pre-setting of the pH prior to carrying out the polycarbonate polymerization reaction, i.e., one combines the reactants (bisphenol A, water, methylene chloride, caustic, polymerization catalyst and endcapping agent), but not the phosgene, adjusts the pH by adding caustic (sodium hydroxide), and then adds the phosgene to effect the polymerization to produce polycarbonate. HR 411, 417, 418, 597 and 598. While acknowledging that the involved Heuschen application does not specifically mention pH equilibrium, Dr. Heuschen testified that the application does teach that the polycarbonate can be prepared by standard methods and that pH equilibrium is such a method. HR 432

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to 436. This teaching appears at page 2, lines 24 to 28, of the Heuschen application and reads as follows:

The polycarbonates useful in the application of this invention are the usual polycarbonates which have been known for at least 30 years. They are prepared by standard methods and utilize the typical dihydric phenols employed in the synthesis of polycarbonates.

Dr. Heuschen further testified that pH equilibration is a routine practice in the prior art of making polycarbonates, and that a similar procedure is also described in the Okamoto patent at column 3, line 43 to column 4, line 9. HR 411 to 414, 416, 417, and 569 to 572. In support of its position, the party Heuschen also filed a notice under 37 CFR § 1.682 which introduces into evidence five U.S. patents (HX 15, 16, and 21 to

23)<sup>8</sup>, which are included in the record at HR 658 to 607. Two of these patents (HX 22 and 23) are incorporated by reference in the Heuschen application at page 4, lines 32 and 33.

We agree with the party Heuschen that it need not have disclosed in its application the particular procedures for making the polycarbonate, since to do so would have made its specification into a production specification and it is settled that an inventor is not required to supply a "production" specification. Wahl Instruments, Inc. v. Acvious Inc., 950 F.2d 1575, 1579, 21 USPQ2d 1123, 1127 (Fed. Cir. 1991).

We note that the party Okamoto relies upon the testimony of Dr. Cooper to the effect that pH equilibration is company proprietary information and trade secret. HR 97. However, it is clear from Dr. Cooper's testimony that he did not appreciate the legal nuances of the expressions, especially where he testified that "it [pH equilibration] was not patented; it was just a trade secret." However, Dr. Heuschen's testimony makes clear that pH equilibration is not a General Electric trade secret. HR 441. Certainly, we consider Dr. Heuschen's testimony vis-à-vis Dr. Cooper's testimony more accurately reflects the facts,

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<sup>8</sup> These exhibits are subject of the party Okamoto's motion to suppress. Essentially, the motion at pages 6 and 7 urges that these patents should be suppressed because no testimony was taken with respect to them and that these patents constitute inadmissible hearsay. However, the purpose of 37 CFR § 1.682 is to introduce printed publications and patents into evidence without the necessity for taking testimony. See Dreikorn v. Barlow, 214 USPQ 632, 634 (Comm'r. Pats. & Trademarks 1981); Bey v. Kollonitsch, 215 USPQ 454, 456 (Bd. Pat. Int. 1981). By filing the notice, the party Heuschen is urging that the documents speak for themselves and the party does not intend to take any testimony pertaining thereto. Bey v. Kollonitsch, id. Further, these patents are not considered hearsay since they are not relied upon for the truth of the matter but rather for the knowledge of the matter in the prior art. Accordingly, the motion is denied insofar as it seeks to suppress these patents.

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i.e., pH equilibration technology is not a trade secret as alluded to by Dr. Cooper but rather is described in the prior art as evidenced by the patents (HX 15, 16, and 21 to 23).

For the foregoing reasons, we hold that the party Okamoto has failed to sustain its burden of persuasion to show a failure to disclose the best mode.



## JUDGMENT

Judgment with respect to the subject matter of the count in issue is hereby awarded to Jean M. H. Heuschen, John B. Luce and Stephan Z. Tomlinson, the junior party. Accordingly, on the present record, Heuschen et al. are entitled to a patent containing claims 1 to 5, 9 and 10 corresponding to the count, and Okamoto is not entitled to a patent containing claims 1 to 7 corresponding to the count.

IAN A. CALVERT  
Administrative Patent Judge

MICHAEL SOFOCLEOUS  
Administrative Patent Judge

ADRIENE LEPIANE HANLON  
Administrative Patent Judge

# BOARD OF PATENT APPEALS AND INTERFERENCES

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Interference No. 103,272

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